Ammonia-Treated Polysilicon Semiconductor Device

ABSTRACT OF THE DISCLOSURE

Semiconductor devices, and methods of fabricating, having ammonia-treated polysilicon devices are provided. A substrate is provided upon which a polysilicon layer is formed. The polysilicon layer is treated with ammonia. Thereafter, portions of the polysilicon layer may be oxidized, forming poly-oxide regions. The poly-oxide regions may be used, for example, to form the poly-oxide layer of a split-gate transistor. The ammonia treatment reduces the tendency of the polysilicon to oxidize along the grain boundaries, thereby allowing smaller designs to be fabricated without bridging occurring between polysilicon structures.